EAS Participant Virtual Roundtable
"Are You Ready for the Nationwide Emergency Alert System Test"
11:00 AM-1:00 PM (ET)

Instructions

We are doing a brief audio check. You should be hearing sound through your computer at this time.

If not, please use the Feedback drop-down menu at the top right and change your color to blue. Amy Sebring or Avagene Moore will try to assist you via private message.

You must have the Live Meeting client installed for audio. The audio will not come through if you are using the Web interface.

You must have a sound card and speakers or headphones. Make sure your speakers/headphones are not muted or turned off on your computer.

Use the Voice & Video/Options/Set Up Audio and Video to check that your sound card is correctly identified. A copy of the Live Meeting instructions can be accessed by clicking on the handouts icon. 

Computer microphones are disabled for this program.

FEMA

A National Dialogue on the Emergency Alert System

Introduction

- **Purpose and Background Information**
- **Moderator**
  - Manny Centeno, EAS Test Program Manager, FEMA IPAWS
- **Virtual Roundtable Participants and Organizations:**
  - Greg Cooke, Associate Chief of the Policy Division, Federal Communications Commisson, Public Safety and Homeland Security Bureau
  - Mark Paese, Office of Operational Systems Director, and Herb White, Dissemination Services Manager, National Oceanic and Atmospheric Administration (NOAA)
  - Paul Long, Deputy Coordinator of Emergency Management, York County, International Association of Emergency Managers (IAEM)
  - John Campbell, Operations Chief, Missouri State Emergency Management Agency, National Emergency Management Association (NEMA)
  - Warren Shulz, Chief Engineer, PEPAC Secretary, Society of Broadcast Engineers (SBE), Gary Blievernicht, SBE 91 Chairperson.
  - Rockie Marsh, Lighthouse Chapter Board Member, Steven Tice, Senior Staff Engineer, Greg Davis, and Dave Sharkey, President of the New England Chapter, Society of Cable Telecommunications Engineers (SCTE)
  - Matt Polka, President, Chris Brandt, Cable Head-End Expert, of American Cable Association (ACA)
  - Steve Johnson, Subject Matter Expert and Consultant, and Loretta Polk Vice President and Associate General Counsel, National Cable and Telecommunications Association (NCTA)
  - Whit Adamson, President of Tennessee Association of Broadcasters (TAB)
  - Don Miller, Washington Military Department, Emergency Management Division, SECC Co Chairman, Technical Advisor, Washington Military Department Emergency Management Division (WMDEM)

Due to the timing of discussion, only a few questions from the Q&A will be answered during the session

Submit more detailed questions, ideas, and comments:

A National Dialogue on the Emergency Alert System

https://nationaldialogue-emergencyalertsystem.ideascale.com/

Follow us on Twitter @NationalEASTest

FEMA

Today, we will focus on three main discussion topics:

FEMA

A National Dialogue on the Emergency Alert System

Discussion topics will last 30 minutes

Roundtable Discussion Topics- 80 minutes

- EAS Message Process- 25 minutes
  - Receive and Relay Process
  - Originator Message Content and Quality
  - Q&A Session and Best Practices
- EAS Originator Education and Training- 25 minutes
  - State and Local Government and EAS Participant Engagement
  - Nationwide EAS Test Public Awareness Toolkit
  - Q&A Session and Best Practices
- EAS Testing- 30 minutes
  - State and Local EAS Testing
  - EAS Equipment Operation and Maintenance
  - EAS Test Preparation Checklist
  - Q&A Session and Best Practices

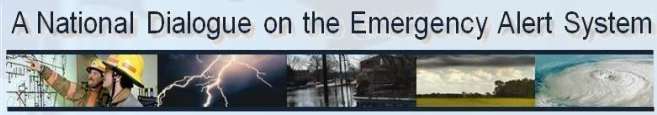
Best Practices Recap- 15 minutes

- Nationwide EAS Test Information Toolkit
- EAS Test Quick Look Checklist

Concluding Remarks and Next Steps- 15 minutes

- September 30th Virtual Roundtable Event
- National EAS Test Best Practices Guide Release in late September 2011

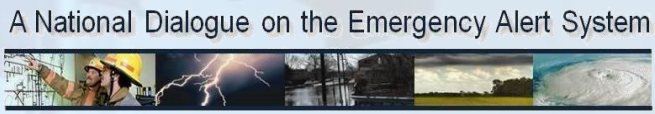
FEMA



Topic 1:
EAS Message Process (30 minutes)

1. How does an EAS message propagate through your area?
2. What other potential EAN monitoring sources would you recommend if you are in a remote area or an area with minimum PEP coverage?
3. What would cable industry suggest as a way to improve the relay process?
4. How can the cable community more effectively distribute NOAA weather messages?
5. What are some guidelines for local individual and community emergency response information (i.e. info about shelter, medical help, emergency status of emergency, food, water, clothing, etc.) that can be inserted into an EAS message? **(Ideascale Suggestion- Idea: Content Suggestions)**
6. From the perspective of the emergency manager, or alerting authority, how is an EAS message crafted?
7. What is the process for quality assurance and authorization?
8. What would you suggest as a best practice for the content of the message to assure the public receives clear, concise, and actionable alerts?
9. From the broadcaster/cable perspective, what do you want to see in an EAS message? What is the ideal message length?
10. What are some best practices for origination?
11. Are RMTs/RWTs part of the program log at the EAS Participant level?

FEMA



Topic 2:
EAS Education & Training (30 minutes)

1. How important and relevant is EAS as an alert and warning tool?
2. What activities promote a shared understanding of the EAS between Emergency Managers and EAS Participants?
3. How can EAS Participants participate in emergency management planning and preparedness? **(Ideascale Suggestion- Idea:Outreach to Emergency Managers)**
4. Are there currently any programs, projects or plans to educate and train membership about alert and warning, and specifically the EAS for Originators?
5. What steps could your organization take to conduct outreach on EAS?
6. How would you, or how are you messaging the Nationwide EAS Test?
7. What specific messaging is practical?
8. Taking into account the level of public awareness on EAS, what strategies do you intend to implement to communicate information on the Test?
9. How would you use an informational toolkit in your area?
10. What hasn't been communicated to the EAS Community about the National EAS Test, or what is ambiguous that will aid EAS Participants and practitioners in preparing for the Test?

FEMA

Topic 3:
EAS Testing (30 Minutes)

1. How often do you test and how?
2. How is your State, county, or local area originating?
3. Does the public in your area understand the EAS and EAS testing?
4. What type of messaging do you use for an RMT?
5. How would you improve public awareness when conducting EAS tests?
6. How often should engineering staff check EAS equipment? Do you have a checklist?
7. Are there any internal tests that a cable head end can conduct to check if their equipment is functional?
8. How many channels are typical for switching? What are your basic methods? Are there information resources that participants can use to do their switching?
9. How much does your on-air staff know about the EAS? How, if at all, is an EAS message communicated to on-air staff? How is it forwarded? Who makes the decision on what is an important EAS message?
10. How do you determine best practice specifications for an EAS crawl?
11. How useful would a slate be for the Test? What are the weaknesses and benefits of a slate?
12. What elements of a preparation checklist need to be addressed before the Test?
13. What areas of the larger best practice guide need to be addressed?

EAS Test Quick Look Checklist

- ❑ Monitoring device or tuner is able to receive the assigned source for an EAN per your State/Territorial EAS Plan
- ❑ EAS device is powered and functional
- ❑ Audio for the monitoring device or tuner is properly connected to your EAS device through an available input (on some devices it may be necessary to enable additional monitoring channels via the device's menu)
- ❑ EAS device has been programmed with the correct station/facility call letters and the clock is properly set
- ❑ EAS device is properly connected to the station\facility audio air chain for transmission

DRAFT LOCATED IN- AN EMERGENCY ALERT SYSTEM (EAS) TECHNICAL AND OPERATIONAL BEST PRACTICES GUIDE: FIRST DRAFT

FEMA

A National Dialogue on the Emergency Alert System

Concluding Remarks and Next Steps

- The final version of the best practices guide will be released after the last EAS Participant Virtual Roundtable September 30, 2011

"Prepared, Planned, & Ready: Final EAS Best Practice Guide Discussion and Release"

Next in the webinar series:

- Thursday, September 1st Nationwide EAS Test Update Webinar: "EAS Equipment Operation and Maintenance"
- Friday, September 30th EAS Participant Virtual Roundtable: "Prepared, Planned, & Ready: Final EAS Best Practice Guide Discussion"
- Thursday, October 13th Nationwide EAS Test Update Webinar: "Final Test Preparations and Procedures"

FEMA

A National Dialogue on the Emergency Alert System

Contact Information

Contact:

FEMA

U.S. Department of Homeland Security
500 C Street, SW
Washington, DC 20472

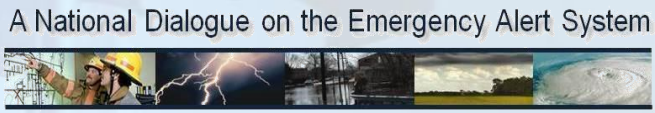
Manny Centeno
EAS Test Program Manager
FEMA IPAWS Program Office, National Continuity Programs
202-646-4328 Office
manuel.centeno1@dhs.gov

Alternate Contact Information:
ipaws@fema.gov

A Special Thank You To:

Federal Communications Commission (FCC)
National Oceanic and Atmospheric Administration (NOAA)
International Association of Emergency Mangers (IAEM)
National Emergency Management Association (NEMA)
Society of Broadcast Engineers (SBE)
Society of Cable Telecommunications Engineers (SCTE)
American Cable Association (ACA)
National Cable and Telecommunications Association (NCTA)
Tennessee Association of Broadcasters (TAB)
Washington Military Department Emergency Management Division (WMDEM)
Primary Entry Point Administrative Council (PEPAC)
National Association of Broadcasters (NAB)
National Alliance of State Broadcasters Associations (NASBA)
Broadcast Warning Working Group (BWWG)
Texas Association of Broadcasters (TAB)
Maine Association of Broadcasters (MAB)
Michigan Association of Broadcasters (MAB)
Alaska Broadcasters Association (ABA)
Alaska Division of Homeland Security and Emergency Management (ADHS & EM)
Nevada Broadcasters Association (NBA)
Puerto Rico Association of Broadcasters (PRAB)

FEMA



AN EMERGENCY ALERT SYSTEM (EAS) TECHNICAL AND OPERATIONAL BEST PRACTICES GUIDE: FIRST DRAFT

Status: AM/FM/Digital Radio Best Practices

Final Release Date: Monday, October 3, 2011

FEMA

DRAFT

A National Dialogue on the Emergency Alert System

Executive Summary

The Emergency Alert System (EAS) is a public alert and warning system that leverages the communications assets of terrestrial broadcasters, cable television systems, wireless cable systems, satellite digital audio radio service (SDARS) providers, direct broadcast satellite (DBS) services and wireline video service providers to allow the President of the United States the capability to address the American public during a national emergency.

This system must be available under all conditions. The system is also used by state and local authorities to deliver important emergency information, such as AMBER alerts. The National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS) regularly uses the system to disseminate emergency weather alerts and advisories.

The “1995 Presidential Communications With the General Public During Periods of National Emergency, Statement of Requirements” document (1995 Presidential Statement of Requirements), signed by President Clinton, states that “During periods of extreme national emergency, reliable communications are required to enable the President to reassure and give direction to the American people.”

Executive Summary

In 2006, Executive Order 13407 (E.O. 13407), signed by President Bush, established that it "is the policy of the United States to have an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people in situations of war, terrorist attack, natural disaster, or other hazards to public safety and well-being (public alert and warning system), taking appropriate account of the functions, capabilities, and needs of the private sector and of all levels of government in our Federal system, and to ensure that under all conditions the President can communicate with the American people."

As part of the Federal Emergency Management Agency's (FEMA) larger efforts to strengthen our nation's preparedness and resiliency, FEMA and the Federal Communications Commission (FCC) announced that we will conduct the first national-level test of the Emergency Alert System on November 9th of this year at 2 pm eastern. Similar to the way local emergency alert system tests are conducted, the nationwide test will involve television stations (including digital television, cable, satellite audio and television services) and broadcast radio stations across the U.S. and several U.S. territories (Puerto Rico, Virgin Islands, America Samoa) at the same time.

Executive Summary

The EAS has never been tested on a national level before, and conducting this test is an opportunity to baseline the system and its capabilities at all levels. The EAS test plays a key role in ensuring our nation is prepared for all hazards and that the public is able to receive critical and vital information, should it ever be needed.

While EAS tests may be temporarily disruptive to radio and television programming, they are important to ensure that the EAS is functional. The November 9 date is near the end of hurricane season and before the severe winter weather season begins in earnest. The 2 PM EST broadcast time will minimize disruption during rush hours, while ensuring that the test occurs during working hours across most of the United States.

FEMA develops, operates and maintains the national-level EAS; conducts test and exercises; ensures the national-level EAS keeps pace with emerging technologies through the use of low-cost innovation techniques.

The FCC maintains the regulatory responsibility, rules and enforcement of the EAS with broadcasters, cable operators, wireline service providers, and other participants.

Executive Summary

NOAA's National Weather Service provides imminent weather threat warnings to the public. During the test, the NWS will provide situational awareness of possible severe weather and climate threats to the United States. If NOAA needs to activate the EAS for severe State/localized weather alerts, test managers may delay the test in that area to make way for the imminent threat weather alert.

FEMA is working with the FCC and NOAA to communicate, educate, and inform EAS participants, emergency management agencies and organizations, and the public of the importance of the EAS, and the need to improve the system. Efforts are underway to promote partnerships with the EAS community to create an ongoing process of dialogue and actions to incrementally improve the EAS.

This Best Practices guide seeks to document the collective concerns, ideas, and solutions of all participants to support a better understanding and more effective use of the EAS at all levels.

Purpose of the Best Practice Guide

FEMA understands that improving the EAS at all levels will take time. FEMA's vision for the improvement of the EAS is incremental. Although the Nationwide EAS Test will use an Emergency Action Notification (EAN) code and will not include EAS origination by State, County, territorial or tribal area, it is important that while we prepare for the Nationwide EAS Test, we also make improvements at other levels.

This EAS Best Practices Guide is designed to assist EAS message originators and all EAS participants with the basics of operating and managing the EAS within their areas and jurisdictions. This Guide can also be leveraged to provide a framework for training personnel on the use and operation of the EAS at all levels of origination, distribution and dissemination.

The success of the EAS is dependent upon strong partnerships between EAS originators and alert disseminators. It is also important that Federal agencies work closely with each other and in cooperation with State, local, territorial, and tribal governments. This is the approach FEMA, the FCC and NOAA have taken to revive the EAS dialogue. A series of meetings, conferences, workshops, webinars, virtual roundtables, and websites have been supporting open and frank discussion on improving this important alert and warning tool.

EAS Origination

The EAS can be a valuable and useful tool to disseminate useful information to the public in emergency situations. This tool provides emergency managers direct access to radio and television broadcasters, cable, and wireline operators, and other electronic mass media. EAS participants expect that this tool will be used only in extreme emergency situations.

It is important that alert originators understand the role that EAS participants play in the emergency management process. In areas where there is a close relationship between emergency management agencies and EAS participants, the EAS does very well. Where this strong partnership does not exist, the EAS has remained ineffective and underutilized. EAS origination needs and capabilities will vary. However, there are a few basic rules and principles that should be followed by alert originators to create more effective messages to the public.

Identify the Agency or Office point of contact authorized to originate and manage alerts

Assure the development of clear and repeatable procedures, training, tests and exercises

Work closely with the EAS participant community (broadcast, cable, wireline, satellite) to establish procedures within a State/local EAS Plan.

EAS Origination

Participate in EAS participant industry gatherings, such as broadcast and cable conferences

Originate an EAS message only when immediate action is required, in a significant emergency or dangerous situation that threatens the public safety, life, or security. Confirm the existence of a significant emergency or dangerous situation before originating an EAS message.

In coordination with EAS participant community, plan and conduct Required Monthly Tests (RMT) to work out challenges and identify solutions

Originate incremental alerts, only as needed to keep the public updated

Use alert templates for consistency and repeatability

Remember, originate your EAS messages with just the right amount of information to alert in a significant emergency or dangerous situation that threatens the public's safety, or security

EAS Origination

Maintain effective public outreach and education campaigns to inform the public about the importance of the EAS and their role in it

Conduct surveys and other feedback activities to gauge if and how the public is receiving the EAS messages to support the identification of problems and implement improvements

Maintain resilient and redundant means to transport the message to the EAS distribution system (LP, SP, relays, etc.)
Use and maintain other emergency alert pathways to the public to increase alert effectiveness through as many means as possible

For incidents that do not pose an immediate threat to public safety, or do not pose a threat to life, use alternate means for notifying the public

EAS Origination Best Practices

When creating EAS messages consider the following:

Keep the ALERT message clear and simple. Make sure the message is timely, accurate and useful

INFORM the public clearly about WHAT is happening – What kind of emergency is it?

What AREA(s) is the emergency message for?

INSTRUCT the public on what to do in the immediate area of the emergency (evacuations, etc.)

INSTRUCT the public on what to do in the surrounding areas of the emergency (avoid the affected areas, etc.)

Briefly REASSURE and inform the public, if appropriate, what the authorities are doing to manage the emergency and tell the public how to get more information

EAS Reception and Relay

Most National Primary (NP), also known as Primary Entry Point (PEP) sources for the EAS are AM stations. AM stations offer specific coverage benefits due to the characteristics of groundwave propagation.

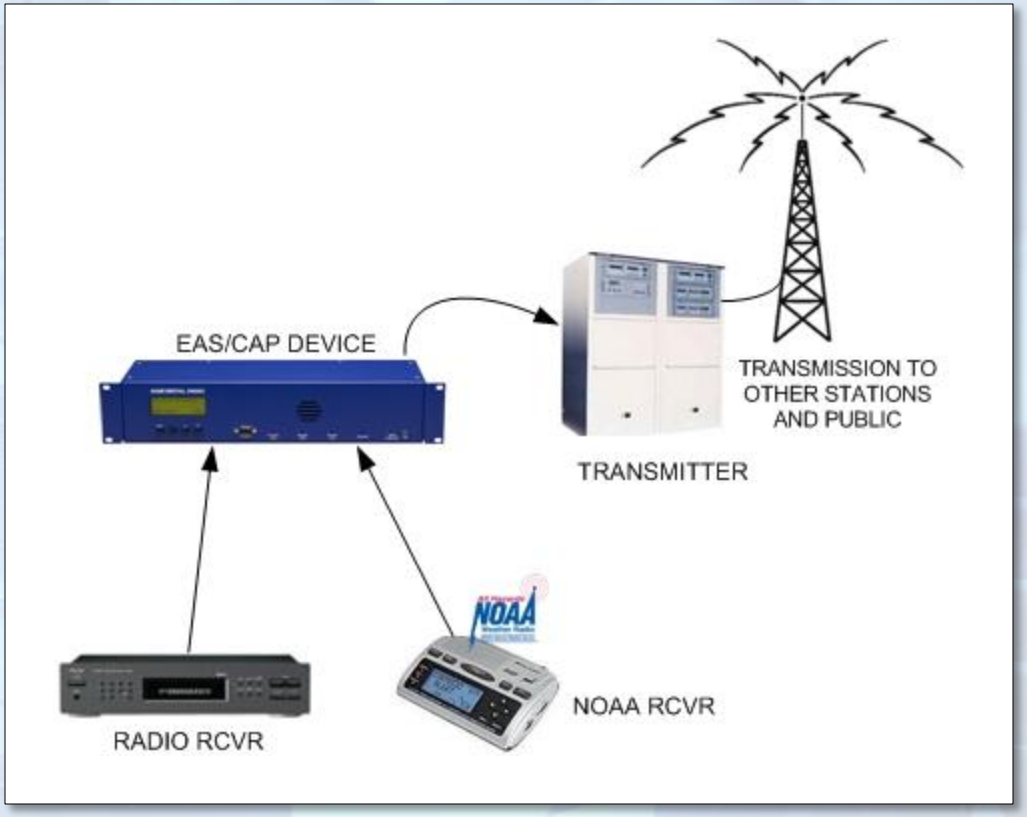
At night, after sunset, changes in the ionosphere permit for skywave propagation, which allows the signals to reach much farther from the transmitting location. AM reception, however, also introduces reception challenges. These challenges include, noise, distortion, and interference.

FM signals are line of sight and cover smaller geographic areas than AM. The band is not subject to most of the reception issues found in AM. However, FM band signals may also present challenges in some situations.

To ensure nominal reception of an EAS source on the AM and FM bands, it is important that EAS participants follow best practices for signal reception.

EAS Reception and Relay

The diagram below illustrates two sources of EAS (radio receiver and NOAA Weather Radio receiver. Additional sources may include specialized telephone circuits, satellite receivers, and other connections for reception of alerts.



Typical Radio EAS Connections

EAS Reception and Relay

Challenges to AM Reception

Weak signals and interference are the source of most AM reception issues. This is true for reception when the signal source is at a great distance, or when a proper antenna is not used.

Selection and use of low quality receivers for signal reception can make reception of weak signals worse.

Overloading – this is caused mainly in co-located facilities (studios and transmitter in same location as receiving device).

A long list of man-made and natural sources causes radio interference.These sources include the following:

Atmospheric Interference and other challenges – Lightning, fading, reflection, refraction, etc.

Electric Noise Sources – light dimmers, fluorescent ballasts, overhead power lines (worn or defective insulators), computers and other digital processing equipment, monitors and displays, electric motors (compressors, blowers, fans, etc.).

EAS Reception and Relay

Challenges to FM Reception

Weak signals contribute significantly to FM reception problems. This is true for reception when the signal source is at a great distance, or when a proper antenna is not utilized

Selection and use of low quality receivers for signal reception should be avoided

Channel Interference – this is caused, for example, when a distant and weaker signal is “over-powered” by a closer, more powerful signal on an adjacent channel

Distorted Audio – some sources of EAS messages may over process, or over modulate the audio and introduce distortion. This distortion may prevent EAS devices form decoding the AFSK tones

EAS Reception and Relay

AM/FM Antenna Best Practices

It is important that EAS participants can receive a clear signal from their sources. This may be simple to achieve in locations where those sources are nearby.

It can be significantly more challenging to receive these important EAS messages in remote locations, rural areas, and locations that are susceptible to interference from man-made sources, and other problems.

Evaluate your signal acquisition needs and select a suitable antenna.

Whenever possible, make use of an exterior antenna for better performance.

For AM, a tuned whip or tuned loop antenna may prove useful.

For locations with high station density, a directional antenna may be preferable.

Observe proper grounding.

Use high-quality, low-loss coax to reduce signal loss and interference.

EAS Reception and Relay

AM/FM/VHF Receiver/Tuner

A high quality radio tuner provides clear benefits over low-cost receiving units. EAS participants should consider the following features when selecting a receiver/tuner:

Antenna Terminals - Essential for reception. Choose a receiver/tuner with AM and FM antenna terminals. Select a receiver/tuner with balanced antenna terminals and use 75Ω coaxial cable to minimize interference.

Sensitivity - Choose a receiver/tuner with a low decibel femtowatt (dBf). This is a measure of how well the receiver/tuner picks up signals. The lower this measurement is, the better the sensitivity.

Selectivity – This item is extremely important in today's crowded radio bands. A receiver/tuner with good Selectivity will allow the unit to receive the desired signal while rejecting the ones around it. A receiver/tuner with a variable "wide/narrow" selectivity switch may be useful in some applications.

Audio Out Interface – A receiver/tuner with good audio output levels is desirable. Balanced audio is preferred. Make sure to check the audio levels driving the monitoring input of the EAS device for nominal levels and no distortion.

Station Preset Memory – A receiver/tuner with non-volatile memory presets is very helpful to prevent having to retune source stations when power outages occur.

EAS Reception and Relay

EAS Receiver Summary

Use an external antenna suitable for receiving your EAS source

Use a directional antenna, if necessary

Use coaxial cable, when possible

Observe good audio engineering practices by ensuring proper grounding, audio phasing, impedance, and levels.

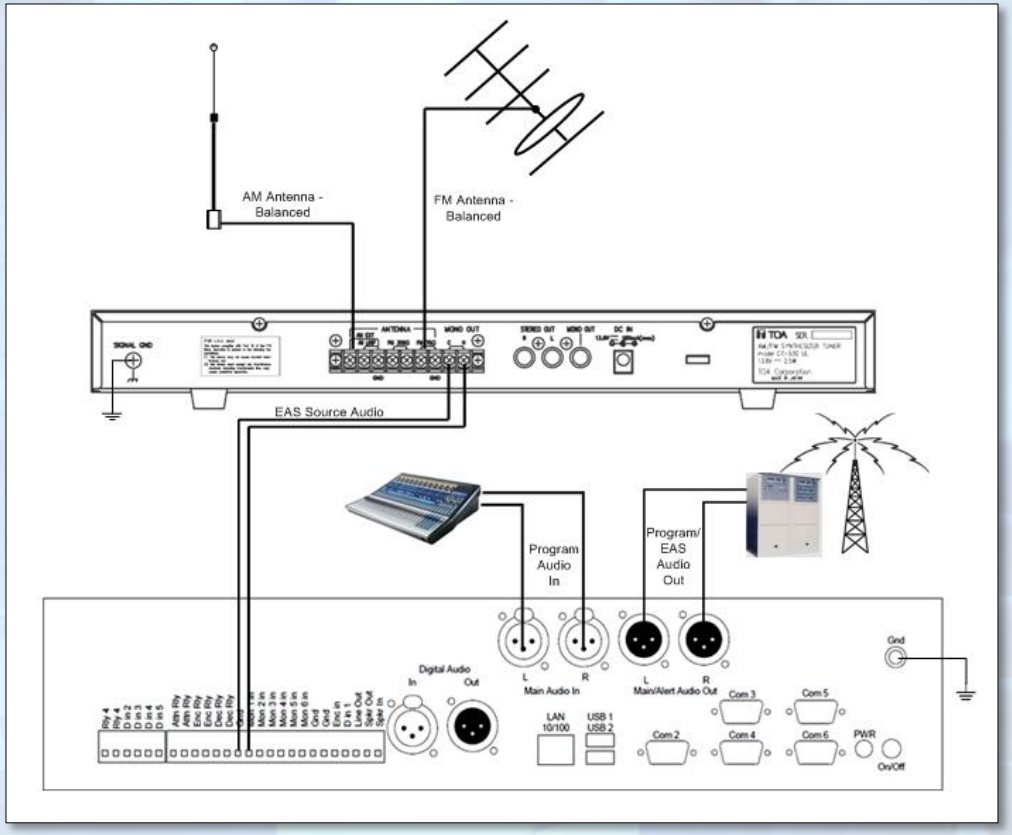
Use a receiver/tuner with external antenna terminals, preferably balanced

EAS Test Quick Look Checklist

- ❑ Monitoring device or tuner is able to receive the assigned source for an EAN per your State/Territorial EAS Plan
- ❑ EAS device is powered and functional
- ❑ Audio for the monitoring device or tuner is properly connected to your EAS device through an available input (on some devices it may be necessary to enable additional monitoring channels via the device's menu)
- ❑ EAS device has been programmed with the correct station/facility call letters and the clock is properly set
- ❑ EAS device is properly connected to the station\facility audio air chain for transmission

EAS Reception and Relay

The diagram below illustrates basic connections between a receiver/tuner and an EAS device. The use of appropriate antennae and cables is highly desirable. Additional sources for EAS messages may include, cable modems, satellite receivers, and telephone lines by way of autocouplers.



Typical Connections for EAS Reception and Relay